



ANNUAL REPORT

ON THE

HEALTH

OF THE

BOROUGH OF CHESTERFIELD,

FOR 1905.

BY

HERBERT PECK,

M.D. Edin., D.P.M. Cambridge.


MEDICAL OFFICER OF HEALTH.



CHESTERFIELD :

DERBYSHIRE COURIER CO., LTD., BURLINGTON STREET.

1906.



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BOROUGH OF CHESTERFIELD.

HEALTH COMMITTEE, 1905.

Chairman :

ALDERMAN CLAYTON, J.P.

Vice-Chairman :

ALDERMAN BOOTH, M.D., J.P.

Members :

THE MAYOR (COUNCILLOR EASTWOOD),

ALDERMAN WOODHEAD, J.P.,

„ WRIGLEY,

COUNCILLOR HADFIELD, C.C.,

„ LACK,

„ LANCASTER,

„ ROBINSON.

Medical Officer of Health :

HERBERT PECK, M.D., C.M. (Edin).,

D.P.H. (Camb).

Sanitary Inspector :

CHARLES E. WOOD, CERTIFIED SANITARY INSPECTOR.

HEALTH DEPARTMENT,

SALTERGATE,

March, 1906.

GENTLEMEN,

I have pleasure in laying before you my sixth Annual Report upon the Health of Chesterfield.

I take this opportunity of acknowledging with thanks the assistance cheerfully given me at all times by Members of the Committee and Mr. Wood.

I am, Gentlemen,

Your obedient servant,

HERBERT PECK.

SUMMARY

OF

ANNUAL HEALTH REPORT

For 1905.

❧ BOROUGH OF CHESTERFIELD. ❧

AREA.—1216 acres uncovered with water; 3 covered with water.

ALTITUDE (average).—About 300 feet above ordnance datum.

POPULATION, Census of 1901.—27,185.

ESTIMATED POPULATION, June, 1905.—28,890.

INHABITED HOUSES, Census of 1891.—5,282.

RATEABLE VALUE.—£100,686.

ASSESSABLE VALUE.—£94,767.

GENERAL DISTRICT RATE.—4s. 0d. in the £ for Old Borough; 4s. 0d. for Brampton and Walton; 3s. 6d. for Newbold; 3s. 0d. for Hasland.

POOR RATE, including School Board, 4s. 5d.

VITAL STATISTICS, 1905.

BIRTH RATE, per 1,000 living,—30·1.

GROSS DEATH RATE, per 1,000 living,—16·6.

CORRECTED DEATH RATE, per 1,000 living,—13·3.

ZYMOTIC DEATH RATE.—1·76.

INFANTILE MORTALITY, per 1,000 births,—119.

ISOLATION HOSPITALS.—Newbold Hospital reserved for Smallpox, and Penmore Isolation Hospital.

WATER SUPPLY.—From Linacre Reservoirs.

SCAVENGING AND REFUSE DISPOSAL.—By servants of the Corporation.

NUISANCES ABATED DURING 1905.—697.

TABLE I.
Vital Statistics of the Borough of Chesterfield during 1905 and previous Years.

YEAR	BIRTHS			Population Estimated to Middle of each Year		TOTAL DEATHS REGISTERED IN THE DISTRICT				Deaths of Non-Residents Registered in Public Institutions in the District				Deaths of Residents Registered in Public Institutions beyond the District		NET DEATHS AT ALL AGES BELONGING TO THE DISTRICT.	
	Number		Rate*	5	6	Under 1 Year of Age		At all Ages		9	10	11	12	13	14	15	16
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
1895	23,950	848	35.4	141	166	502	20.9	110	81	...	421	17.6	...	...	...	...	...
1896	24,461	839	34.3	140	167	505	20.6	85	42	4	467	19.1	...	...	...	...	...
1897	24,983	818	32.7	180	220	587	23.4	119	76	...	511	20.4	...	...	...	...	...
1898	25,516	880	34.5	201	228	616	24.1	112	77	...	539	21.1	...	...	...	...	...
1899	26,060	881	33.8	149	169	521	20.0	136	64	...	457	17.4	...	...	...	...	...
1900	26,617	898	33.7	191	212	621	23.3	108	50	...	571	21.4	...	...	...	...	...
1901	27,329	905	33.1	198	217	638	23.3	134	75	1	564	20.5	...	...	...	...	...
1902	27,765	896	32.3	144	161	557	20.0	139	80	1	478	17.2	...	...	...	...	...
1903	28,381	956	33.7	170	167	536	18.9	145	92	1	445	15.7	...	...	...	...	...
1904	28,590	909	31.6	155	171	568	19.6	162	102	...	466	16.3	...	...	...	...	...
Averages for years 1895-1904	26,365	883	33.5	167	189	565	21.4	125	74	.7	492	18.6	...	...	...	...	...
1905	28,890	872	30.1	104	119	481	16.6	137	101	4	384	13.3	...	...	...	...	...

*Rates in Columns 4, 8, and 13 calculated per 1,000 of estimated population.

NOTE.—The deaths included in Column 7 of this Table are the whole of those registered during the year as having actually occurred within the district or division. The deaths included in Column 12 are the number in Column 7 corrected by the subtraction of the number in Column 10 and the addition of the number in Column 11.

By the term "Non-Residents" is meant persons brought into the district on account of sickness or infirmity, and dying in public institutions there; and by the term "Residents" is meant persons who have been taken out of the district on account of sickness or infirmity, and have died in public institutions elsewhere.

The "Public institutions" taken into account for the purposes of these Tables are those into which persons are habitually received on account of sickness or infirmity, such as hospitals, workhouses and lunatic asylums. A list of the Institutions in respect of the deaths in which corrections have been made is given on the back of this Table.

Area of District in Acres (exclusive of area covered by water) 1,216.
Total population at all ages, 27,185. Number of inhabited houses at Census of 1901, 5,282. Average Number of persons per house, 5.146.

I. Institutions within the District receiving sick and infirm persons from outside the District.	II. Institutions outside the District receiving sick and infirm persons from the District.	III. Other Institutions, the deaths in which have been distributed among the several localities in the District.
<p>Chesterfield and North Derbyshire Hospital.</p> <p>Chesterfield Union Workhouse.</p>	<p>Penmore Isolation Hospital, Hasland.</p> <p>Newbold Smallpox Hospital.</p>	
Is the Union Workhouse within the District?—Yes.		

TABLE II.

Vital Statistics of separate Localities in 1905 and previous years in the Borough of Chesterfield.

NAMES OF LOCALITIES.	1.—BOROUGH.				2.—NORTH WARD.				3.— SOUTH WARD.				4.— WEST WARD.			
	Population esti- mated to middle of each year.	Births registered.	Deaths at all Ages.	Deaths under 1 Year.	Population esti- mated to middle of each year.	Births registered.	Deaths at all Ages.	Deaths under 1 Year.	Population esti- mated to middle of each year.	Births registered.	Deaths at all Ages.	Deaths under 1 year.	Population esti- mated to middle of each year.	Births registered.	Deaths at all Ages.	Deaths under 1 year.
1895	23,950	848	421	141	..	..	136	..	..	..	146	..	..	..	138	..
1896	24,461	839	467	140	..	..	..	..	..	..	..	..	..	..	..	..
1897	24,983	818	511	180	..	..	..	..	..	..	..	..	..	..	..	..
1898	25,516	880	539	201	..	..	..	..	..	..	..	..	..	..	..	..
1899	26,060	881	457	149	..	..	..	..	..	..	..	..	..	..	..	..
1900	26,617	898	571	191	9551	..	155	52	8764	..	213	62	8302	..	202	77
1901	27,329	905	564	198	9875	..	180	58	8764	..	196	70	8690	..	188	70
1902	27,765	896	478	144	10,073	268	155	38	8763	289	162	47	8929	339	161	59
1903	28,381	956	445	170	10,248	245	130	34	8923	295	158	56	9210	416	157	70
1904	28,590	909	466	155	10,323	231	147	40	8958	314	152	48	9309	364	167	67
Averages of Years 1895 to 1904.	26,365	883	492	167	10,014	248	153	44	8834	299	176	56	8888	373	175	68
1905.	28,890	872	384	104	10,440	246	109	28	9000	280	127	39	9450	346	148	37

TABLE III.

Cases of Infectious Disease notified during the Year
1905 in the Borough of Chesterfield.

NOTIFIABLE DISEASE	CASES NOTIFIED IN WHOLE DISTRICT						TOTAL CASES NOTIFIED IN EACH LOCALITY					No. OF CASES REMOVED TO HOSPITAL FROM EACH LOCALITY					
	At Ages—Years						1	2	3	4	5	1	2	3	4	5	6
	Under 1	1 to 5	5 to 15	15 to 25	25 to 65	65 and upwards	19	23	10	1	.	19	23	10	1	.	53
Small-Pox ..	3	6	15	7	22	.	4	3	9	2	.	1	.	1	2	.	4
Cholera..	1	8	4	4	1	.	12	7	12	2	.	.	.	.	.	.	.
Diphtheria ..	2	52	48	23	8	.	42	25	35	14	.	11	9	8	12	.	40
Membranous croup	.	.	.	.	.	.	3	3	8	1	.	.	.	.	1	.	5
Erysipelas ..	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Scarlet fever	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Typhus fever	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Enteric fever	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Relapsing fever	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Continued fever	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Puerperal fever	.	.	.	.	.	.	1	.	1	.	.	.	.	.	.	.	.
Plague ..	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
Totals ..	6	67	76	49	39	.	81	61	75	20	.	31	32	23	16	.	102

NOTES —The localities adopted for this table should be the same as those in tables II. and IV.

*Brought to the Chesterfield and North Derbyshire Hospital for operation of tracheotomy.

Isolation Hospitals—Penmore Hospital, Hasland; Small-pox Hospital, Newbold Hospital.

TABLE IV.

**Causes of, and Ages at, Death during Year 1905, in the
Borough of Chesterfield.**

Causes of Death.	Deaths at the Subjoined Ages of "Residents" whether occurring in or beyond the District.							Deaths at all ages of "Res- idents" belonging to Local- ities, whether occurring in or beyond the District.					Total Deaths in Public Institutions in the District.
	All ages.	Under 1	1 and under 5	5 and under 15	15 and under 25	25 and under 65	65 and upwards	North Ward	South Ward	West Ward	Hospital	Union Workhouse	
1	2	3	4	5	6	7	8	9	10	11	12	13	14
Small-pox ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...
Measles... ..	7	...	6	1	...	...	...	2	3	2	...	...	...
Scarlet Fever	8	1	5	2	...	...	...	...	3	5	...	...	...
Whooping-cough	6	4	1	1	...	...	...	...	1	5	...	...	...
Diphtheria and mem- branous croup	3	1	2	...	...	...	...	1	1	1	...	...	...
Croup ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...
Fever { Typhus	...	...	...	...	...	...	...	...	...	...	...	...	...

	4	...	...	2	2	...	...	1	...	3	...	...	...
Other continued	...	...	...	...	...	...	...	...	...	...	...	...	...
Epidemic Influenza	5	...	...	...	1	4	...	1	2	2	...	...	...
Cholera... ..	...	...	...	...	...	...	...	...	...	...	...	...	...
Plague ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...
Diarrhœa	23	18	4	...	...	1	...	5	10	8	...	1	1
Enteritis	3	1	...	...	1	1	...	2	...	1	...	...	...
Puerperal Fever ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...
Erysipelas ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...
Other Septic Diseases	4	...	...	1	...	3	...	2	2	...	4	3	7
Phthisis (Pulmonary Tuberculosis)	29	...	...	...	6	21	2	9	6	14	...	11	11
Other Tubercular Diseases	15	6	6	2	1	...	...	6	2	7	2	2	4
Cancer, Malignant Diseases	13	...	1	...	...	6	6	6	3	4	3	6	9
Bronchitis	43	14	12	...	1	6	10	11	17	15	...	7	7
Pneumonia	36	6	11	1	...	11	7	6	17	13	3	2	5
Pleurisy	2	...	...	...	...	...	2	1	1	...	...	...	...
Other Diseases of Respiratory Organs	3	2	...	...	...	1	...	1	2	...	...	...	...
Alcoholism	...	...	...	...	...	...	...	...	...	...	...	...	...
Cirrhosis of Liver	4	...	...	...	...	4	...	1	3	...	...	2	2
Venereal Diseases ... ..	...	...	...	...	...	...	...	...	...	...	...	3	3
Premature Birth	16	16	...	...	...	...	...	4	6	6	...	...	...
Diseases & Accidents of Parturition	3	...	...	...	1	2	...	...	1	2	...	...	...
Heart Diseases	27	...	...	3	2	16	6	6	13	8	3	8	11
Accidents	6	...	2	1	...	3	...	2	1	3	16	...	16
Suicides ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...
Old Age... ..	28	...	...	...	...	2	26	10	5	13	...	33	33
Murder	1	...	...	...	...	1	...	...	1	...	...	...	...
Manslaughter	1	1	...	...	...	...	...	...	1	...	...	...	...
Acute Rheumatism ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...
Uncertified	23	7	5	...	...	6	5	3	10	8	...	2	2
All other causes	71	27	4	1	3	21	15	29	16	28	7	19	26
All causes	384	104	59	15	18	109	79	109	127	148	38	99	137

TABLE V.

Borough of Chesterfield.

INFANTILE MORTALITY DURING THE YEAR 1905.

DEATHS FROM STATED CAUSES IN WEEKS AND MONTHS
UNDER ONE YEAR OF AGE.

CAUSE OF DEATH.	Weeks.				Total under One Month.	Months.									Total Deaths under One Year.	
	Under 1 week.	1-2 weeks.	2-3 weeks.	3-4 weeks.		1-2 months.	2-3 months.	3-4 months.	4-5 months.	5-6 months.	6-7 months.	7-8 months.	8-9 months.	9-10 months.		10-11 months.	11-12 months.
All Causes (certified)	20	3	2	3	28	14	8	12	5	4	5	6	4	6	1	97
" (uncertified)	3	..	..	..	3	1	2	..	..	1	..	..	..	..	..	7
Scarlet Fever	..	..	..	..	..	..	..	..	..	..	..	1	1	..	..	1
Diphtheria: Croup	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	1
Whooping Cough	..	..	..	..	..	1	1	1	..	..	..	..	..	..	..	4
Diarrhoea, all forms	..	..	..	1	1	2	5	..	..	..	..	2	2	..	..	18
Gastritis, Gastro-intestinal	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Catarrh	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	1
Premature Birth	15	..	1	..	16	2	..	..	..	..	..	..	..	..	..	18
Congenital Defects	3	2	..	..	5	..	..	..	..	1	..	..	..	..	..	9
Atrophy, Debility, Marasmus	3	..	1	..	4	7	1	2	1	..	..	..	..	..	..	16
Tuberculous Meningitis	..	..	..	..	..	..	..	..	..	1	1	1	..	..	..	2
Tuberculous Peritonitis:	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Tabes Mesenterica	..	..	..	..	..	..	..	..	1	..	..	1	..	..	..	2
Other Tuberculous Diseases	..	..	..	..	..	..	1	..	1	..	..	..	..	..	..	2
Convulsions	2	1	..	2	5	..	3	1	..	1	1	..	..	1	..	12
Bronchitis	..	..	..	..	..	..	1	2	..	3	..	1	..	1	..	14
Pneumonia	..	..	..	..	..	..	1	..	2	..	..	..	..	1	..	6
Other Causes	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	1
	23	3	2	3	31	15	10	12	5	5	5	6	4	6	1	104

DISTRICT OF CHESTERFIELD, CHESTERFIELD SUB-DIVISION—
Population (estimated to middle of 1905) 28,890.

Births in the year	}	Legitimate, 821.	Deaths from all Causes at all Ages,	} 384.
		Illegitimate, 51.		

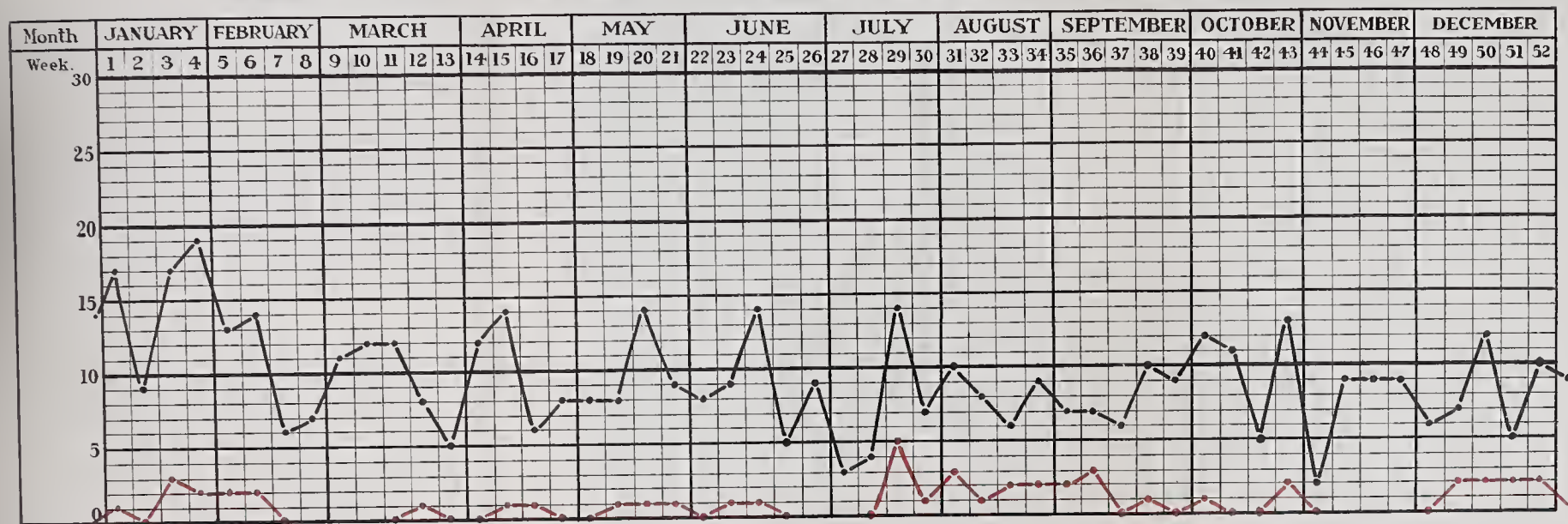
TABLE VI.

Vital Statistics of the Borough of Chesterfield for 1905, compared with those for the previous ten years, and with those of England and Wales for the ten years ending 1903.

The Rates are per 1,000 Living.		Chesterfield 1905.	Chesterfield Average of Ten Years, 1895 to 1904.	England & Wales avrge of 10 Years, 1894 to 1903
Estimated Population ...	...	28,890	26,365	40,585,947
Birth Rate ...	...	30.1	33.5	29.1
Death Rate ...	...	13.3	18.6	17.22
Zymotic Death Rate ...	...	1.76	2.88	2.01
Infant Mortality (per 1,000 births)		119	189	149.5
Smallpox ...	...	nil	.004	.004
Measles ...	...	.24	.48	.38
Scarlet Fever ...	...	.27	.17	.14
Whooping Cough ...	...	.21	.27	.34
Diphtheria & Membranous Croup		.10	.18	.26
Croup ...	...	nil	.03	.03
Enteric and Continued Fever ...	...	.14	.26	.16
Epidemic Influenza ...	...	.17	.19	.28
Diarrhœa ...	...	.80	1.50	.72
Enteritis ...	...	.10	.47	.37
Puerperal Fever ...	...	nil	.05	.06
Erysipelas ...	...	nil	.02	.04
Other Septic Diseases ...	...	.14	.06	.04
Phthisis, Pulmonalis ...	...	1.00	1.14	1.31
Other Tubercular Diseases ...	...	.52	.66	.58
Cancer, Malignant Disease ...	...	.45	.60	.80
Bronchitis ...	...	1.49	2.08	1.52
Pneumonia ...	...	1.25	.90	1.19
Pleurisy ...	...	.07	.01	.05
Alcoholism, Cirrhosis of the Liver		.14	.23	.21
Venereal Diseases ...	...	nil	.09	.07
Premature Birth ...	...	.55	.66	.57
Diseases & Accidents of Parturition		.10	.09	.07
Heart Diseases ...	...	.93	1.17	1.49
Accidents ...	...	.21	.53	.52
Suicides ...	...	nil	.06	.08
Acute Rheumatism ...	...	nil	.05	.08
Old Age ...	...	.96	1.63	.92
Uncertified (per cent of total deaths)		.80	5.02	.06

BOROUGH OF CHESTERFIELD.

CHART SHOWING THE MORTALITY REGISTERED DURING EACH WEEK OF 1905.



Note: THE BLACK LINE INDICATES THE DEATHS FROM ALL CAUSES: THE RED LINE THE DEATHS FROM THE
SEVEN PRINCIPAL ZYMOTIC DISEASES.

REPORT.

Physical Features and General Characters of the District.—The greater part of the town is built upon a tongue of land which projects in an easterly direction from the high land of Newbold and Dunston into the valley of the Rother, the remainder being situate to the north, east, and west of this in the valleys of the Hipper and the Rother, which streams have their confluence here.

The geological formation is chiefly clay overlying the coal measures, though shallow deposits of alluvium are found near the rivers. The most elevated part of the town is built upon a loose shale, (or "ratchill," as it is called locally), though sandstone also occurs. The altitudes range from 234 feet 3 inches at the river near the Midland Railway Station to 348 feet 6 inches near the old Recreation Ground.

The Borough is divided for electoral purposes into three Wards :-- the North, which is chiefly residential and mercantile, and the South and West, which contain the principal factories and works, though they are also largely residential.

The town is a busy and increasing one, served by three railways, and is the centre of a large and important colliery and agricultural district. The chief industries are the coal and iron trades, but there are several large mills, engine works, potteries, breweries and a large tannery. Coal and shale miners formed 22 per cent. of the males engaged in occupations at the time of the last census. The Chesterfield and Stockwith Canal, an important means of communication before the advent of the Great Central Railway, is now disused.

Population.—The Population was 22,009 at the census of 1891, and 27,185 in 1901, and is still increasing.

Calculated according to the method of the Registrar-General, which is based upon the assumption that the population continues to increase or decrease in any intercensal period at the same rate as in the previous ten years, the population at the middle of the year was 29,582. Calculated on the natural increase, or excess of births over deaths, it was about 29,142. Calculated upon the numbers of inhabited houses, so far as I was able to obtain them, the **Population** of the Borough was **28,890**; of the North Ward, including the Chesterfield and North Derbyshire Hospital and the Union Workhouse, 10,440; of the South Ward, 9,000; and of the West Ward, 9,450; and it is upon these estimated populations that the rates given in this Report are based. The inclusion of the populations of the Hospital and Workhouse in that of the North Ward slightly reduces the rates for that Ward.

Twenty-two new houses in the North Ward were passed for occupation during the twelve months ending June 30th, 8 in South, and 29 in the West.

Birth Rate.—The 896 Births registered included 24 in the Union Workhouse belonging to other districts, 19 of which were illegitimate. The deduction of these gives 872 as the correct number, which are equal to a **Birth Rate** of **30·1** per 1,000 living, as compared with the average for the previous ten years of 33·5. This is the lowest rate ever recorded for the Borough, and, following on the low rate of 1904, the previous lowest recorded, cannot be regarded without uneasiness. This is not lessened by the knowledge that the country as a whole is affected in like manner, the facts pointing unmistakably to what is euphemistically called race suicide.

A not usually noticed feature of this question is that the decrease is less marked or non-existent in the case of the less intelligent class, so that on the principle of like begetting like,

the proportion of intelligent persons to the population appears likely to diminish.

The rate was 23·6 per 1,000 in the North Ward ; 31·1 in the South, and 36·6 in the West.

After correction for the Workhouse, the number of Illegitimate Births is 51, equal to 5·8 per cent. of the whole. The rate was 5·7 in the North Ward, 5·0 in the South Ward, and 6·6 in the West Ward. Illegitimacy has a considerable influence on the Infant Mortality Rate,

Death Rate.—The gross number of Deaths was 481, equal to a Crude Death Rate of 16·6 per 1,000 of the population, as compared with a decennial average of 21·4. After the deduction of the deaths of 101 persons not belonging to the Borough who were received in the Chesterfield and North Derbyshire Hospital and the Union Workhouse on account of sickness or infirmity, and the addition of those of 4 persons belonging to the Borough who died in the Penmore Hospital, Hasland, the corrected number is 384, equal to a **Death Rate** of **13·3** per 1,000. This is the lowest ever recorded for the Borough, being 2·0 per 1,000 below that of 1894, the previous lowest, and 5·3 below the decennial average.

The rates were 10·4 per 1,000 in the North Ward, 14·1 in the South, and 15·7 in the West.

The Death Rate from the Seven Principal Zymotic Diseases.—Seven deaths ascribed to measles, 8 to scarlet fever, 6 to whooping cough, 3 to diphtheria and membranous croup, 4 to enteric fever and 23 to various forms of diarrhœa are equal to a **Zymotic Death Rate** of **1·76** per 1,000. This is well below the decennial average of 2·88 and the lowest recorded except those of 1·3 in 1894 and 1·55 in 1902. The decrease is chiefly due to the comparatively small number of deaths from diarrhœa, which ranged from 17 to 67 in the previous ten years and averaged 40.

The rate was 0·86 in the North Ward, 2·00 in the South, and 2·53 in the West.

The Infant Mortality Rate.—This rate, being based on actual figures and not on an estimate, is an exact one, and a most valuable one when taken over a number of years.

The 104 deaths of children under one year are equal to an **Infant Mortality Rate** of **119** per 1,000 births. This is 70 per 1,000 less than the decennial average, and the lowest ever recorded for the Borough, the previous lowest being 144 in 1894.

The rate was 114 in the North Ward, 139 in the South, and 107 in the West,

It was 107 among legitimate and 314 among illegitimate children. The average of the previous five years was 184 for legitimate and 365 for illegitimate children.

Since I have been Medical Officer of Health, I have taken the trouble to arrange the deaths of illegitimate children under the occupations of the mothers, and the following are the figures.

	1900	1901	1902	1903	1904	1905	Total.
Boot factory hand ... ..	...	1	1	...	...	...	2
Bottlewasher ... ..	...	1	1	...	...	...	2
Charwoman ... ..	...	...	...	1	2	1	4
Cotton factory hand	1	3	2	2	...	4	12
Domestic servant	7	2	2	7	5	2	25
Paper-box factory hand	1	...	...	1	1	1	4
Pottery hand	2	4	7	1	1	1	16
Theatrical performers, etc.	1	...	...	...	1	...	2
Tobacco factory hand	3	1	4	...	...	...	8
Other occupations	1	...	1	1	...	2	5
No occupation	7	4	10	7	4	5	37
	23	16	28	20	14	16	117

Comparison between Tables IV. and V. will show slight differences. These are not due to lack of care, but to some of the deaths being uncertified by a medical man and accordingly entered under that heading.

TABLE VII.

Synoptic Table of the foregoing Rates and the Rates of Neighbouring Districts, and England and Wales.

1905.	Estimated Population	Annual Rates per 1,000 living.						Infant Mortality per 1000 Births.
		Births.	Deaths.	Zymotic Deaths.	Respiratory Diseases Deaths.	Phthisis Deaths.	Other Tubercular Diseases Deaths.	
England and Wales ...	...	27.2	15.2	1.52	...	...	...	128
Rural England and Wales ...	...	26.3	14.9	1.09	...	...	...	113
76 Great Towns ...	...	28.2	15.7	1.88	...	...	...	140
141 Smaller Towns ...	...	26.9	14.4	1.50	...	...	...	132
Bolsover Urban District ...	10,000	40.1	12.1	1.41	2.42	0.9	0.59	120
Brampton and Walton U.D. ...	2,700	25.1	11.8	1.1	1.4	0.7	—	147
Chesterfield Rural District ...	75,415	33.3	15.0	1.83	3.16	0.55	0.66	138
Clay Cross Urban District ...	8,450	36.9	14.9	2.0	2.0	—	0.7	151
Clown Rural District ...	14,100	42.3	13.9	1.62	2.27	0.64	0.21	126
Dronfield Urban District ...	3,920	26.2	15.6	1.79	3.0	0.5	0.5	146
Newbold and Dunston U.D. ...	6,100	37.3	17.3	2.13	2.95	1.80	0.82	158
Whittington Urban District ...	9,876	35.2	15.8	2.4	3.3	0.07	1.5	140
City of Sheffield ...	440,414	29.7	17.0	3.23	3.29	1.10	0.5	167
Borough of Chesterfield ...	28,890	30.1	13.3	1.76	2.91	1.00	0.52	119
Borough of Chesterfield—Average of ten years, 1895 to 1904 ...	26,365	33.5	18.6	2.88	3.5	1.13	0.66	189

TABLE VIII.

Giving the Number of Cases of and Deaths from
Infectious Diseases during recent Years.

	1895	1896	1897	1898	1899	1900	1901	1902	1903	1904	Average of 10 yrs	1905
Notifiable Diseases												
Small-pox—Cases	0	0	0	0	0	0	0	9	43	6	5·8	53
Deaths	0	0	0	0	0	0	0	0	1	0	0·1	1
Scarlet Fever—												
Cases	46	103	267	121	105	159	88	59	51	291	129	116
Deaths	2	3	7	6	4	5	5	2	0	11	4·5	8
Diphtheria & Mem- branous Croup												
Cases	8	14	10	5	7	44	39	23	41	37	22·8	19
Deaths	4	5	4	2	1	2	10	4	7	10	4·9	3
Erysipelas — Cases	12	18	27	23	27	21	26	32	18	32	23·6	34
Deaths	0	0	1	0	0	0	2	1	0	0	0·4	0
Puerperal Fever—												
Cases	2	1	3	5	5	0	4	3	1	0	2·4	2
Deaths	1	1	3	3	0	0	3	1	1	0	1·3	0
Enteric or Typhoid Fever—Cases	28	9	59	47	21	20	109	20	22	46	38·1	15
Deaths	4	0	10	5	7	8	19	3	3	10	6·9	4
Non-Notifiable Diseases												
DEATHS ONLY												
Diarrhoea	44	18	67	46	33	31	44	17	35	63	39·8	23
Enteritis.. ..	0	16	15	20	14	24	12	5	3	9	11·8	3
Measles	10	35	0	18	4	32	4	13	10	2	12·8	7
Whooping Cough..	0	6	10	14	5	4	14	4	8	7	7·2	6

INFECTIOUS DISEASES.

Particulars are given in Table III. of the number of cases in each locality, the age periods of the patients and the number removed to each hospital.

Particulars of the cases and deaths in recent years are given in Table VIII. on page 18.

It is the practice to remove, so far as allowed by those in charge of them, all the patients who are likely to spread infection if kept at home. The hospital accommodation is too small to permit of the removal of all infectious patients.

Smallpox.—Houses infected 32, Cases 53, Deaths 1. I attribute the low mortality to the fact that all the patients were treated under red light. The fatal case is alluded to below.

The first case reported was that of a child in St. Mary's Gate, and inquiry into it led to the discovery of three in adjoining houses. The four were found to have a common origin in another which occurred three weeks earlier in a common lodging house. The patient in this case, who probably contracted the disease from a tramp who stayed at the house for one or more nights, was seen by a medical man, who diagnosed the complaint as chickenpox. This mistake gave the disease three weeks start, during which time it was passed to the households mentioned, to several tramps, and to nine customers and others at two public houses. Most of the subsequent cases were traceable to the last, and probably all but two arose from them, directly or indirectly. Cases in connection with them occurred in Hasland, Staveley and Worksop, and probably also in Brimington and North Wingfield.

The death which occurred was not recorded against the town, for the patient belonged to Deptford, contracted the disease at Worksop, and was ill with it when she entered Chesterfield. She presented herself for treatment at the out

patient department of the Chesterfield and North Derbyshire Hospital, where her complaint was recognised, and whence she was removed to the Newbold Hospital, where she died from chronic alcoholism and confluent smallpox. Her husband was the only person infected by her.

The first patient was taken to hospital on March 27th, and the last on August 12th.

Twenty-three of the patients were unvaccinated; another was said to have been vaccinated in infancy but had no marks; 28 had been vaccinated in infancy only; one had been re-vaccinated, and though he had slept for several days with a patient, had only four pocks. When the enormous disproportion between the numbers of vaccinated and unvaccinated is remembered, these figures bear striking testimony to the great value of vaccination.

All the patients were removed on discovery to the Newbold and Spital Smallpox Hospitals. All persons known to have been in contact with them were vaccinated or re-vaccinated when they would consent to the operation. Seven who refused contracted the disease, but none who consented developed the disease except seven who did so before the vaccine had time to do its work. All cases of chickenpox and doubtful skin affections reported by the officers of the Education Committee were examined, eleven cases of smallpox being discovered in this manner. All infected houses, bedding and clothes were disinfected. All known contacts were kept under observation for a sufficient time, and several sanitary authorities were warned when persons known to have been in contact with patients visited their districts.

Only 28 of the cases were notified by medical practitioners, the remainder being discovered by inquiry.

Diphtheria and Membranous Croup.—Houses infected 17, Cases 19, Deaths 3. These are one and the same disease.

The number of cases was below the decennial average of 25, and well below the 37 of 1904. The deaths were below the average 5, and less than one-third those of the previous year.

Four occurred in the first quarter, 6 in the second, 2 in the third and 7 in the last.

Diphtheria antitoxin serum was gratuitously provided for curative and prophylactic purposes.

No bacteriological specimens were sent for examination to Birmingham University under the arrangement made by the County Council.

Erysipelas.—Houses infected 34, Cases 34, Deaths 0. The number of cases was above the average of 26, but none call for special remark.

Scarlet Fever.—Houses infected 82, Cases 116, Deaths 8. The number of cases was below the decennial average of 140, but the mortality in excess of the average of 4·5.

Fourteen of the cases occurred in the Chesterfield and North Derbyshire Hospital in patients under treatment for other complaints, most of the patients deriving the infection from others removed at the end of the previous year. The mortality among these, suffering from two diseases, was very serious.

The disease was epidemic in various parts of the town at the end of 1904, and was continued into the year. Fifty-six cases occurred in the first quarter of the year, 40 in the second, 7 in the third and 13 in the last.

Enteric Fever.—Houses infected 13, Cases 15, Deaths 4. The number of cases and deaths compares favourably with the decennial averages of 81 and 7. One case occurred in the first quarter of the year, 2 in the second, 9 in the third and 3 in the last.

One case was attributable to direct or sickroom infection ; one to direct infection outside the district ; one to importation from a neighbouring district, while the causation of twelve was unknown.

One specimen of blood sent to the bacteriological laboratory at Birmingham University gave negative results.

Hospital Accommodation.—This is provided at Newbold and Penmore Hospital by the Chesterfield Joint Hospital Committee which consists of representatives of the Brampton and Walton, Newbold and Dunston, and Whittington Urban Councils and the Corporation of Chesterfield. Newbold Hospital for smallpox patients has 11 beds in each of the two wards, one of which has red glass windows. There is a small administration block, wash-house and mortuary. It is supplied with water by public service and has a small but sufficient sewage disposal works.

Penmore Hospital affords accommodation for 16 scarlet fever patients in four wards, two of which are single bed wards reserved for paying and special patients ; for 10 enteric fever patients in two wards of 4 and 6 beds each ; while the isolation block has 4 beds in three wards for patients who require to be kept under observation. The scarlet fever block has a large “sun room” for the use of convalescent children during the day in unfavourable weather.

There is also an administrative block, a steam laundry, disinfecting apparatus, discharging rooms, ambulance and bedding-van sheds, stable and mortuary.

Particulars of the number of patients sent to the hospitals are given in Table III. Twenty-five of the smallpox patients were treated at Newbold Hospital ; four diphtheria patients, who underwent the operation of tracheotomy, at the Chesterfield and North Derbyshire Hospital ; and 40

scarlet fever and 5 enteric fever patients at Penmore Hospital. Under an agreement with the North Derbyshire Hospital Committee, by which patients may be sent by either Committee to the hospitals of the other Committee, 28 patients belonging to Chesterfield were treated at the Spital Smallpox Hospital, and 13 scarlet fever and 3 enteric fever patients belonging to the North Derbyshire Hospital Committee's district were treated at Penmore Hospital.

It is cheaper to pay 21s. a week for a patient than to open another isolation block, while on the other hand, the profit on a "foreign" patient helps to reduce the running expenses of a ward already open.

The Non-notifiable Infectious Diseases, other than Diarrhoea, which came to my knowledge were those reported by the School Attendance Officers, and were as follows:—

Measles	280
Whooping Cough ...	15
Mumps	24
Chickenpox	47
Ringworms	48
Other Skin Affections ...	86
	<hr/>
	500

Eleven cases reported as chickenpox proved to be smallpox.

In return for the information afforded, I gave information to the Education Committee's officers of cases of notifiable infectious disease reported to me.

Measles and Whooping Cough caused 7 and 6 deaths respectively. Handbills concerning treatment and advising the isolation of the patients were sent to all houses known to be infected.

Diarrhœa and Enteritis.—The number of deaths ascribed to diarrhœa was 23, and to enteritis 3, which numbers compare very favourably with the 63 and 9 of 1904, and the decennial averages of 40 and 14.

The smallness of the numbers must be chiefly attributed to the comparatively large number of showery days during the months which are usually the hottest and driest and the most favourable to the growth of the organisms which cause putrefactive and fermentative changes, and which are carried and blown about with dust. Other factors in the reduction are the laying of dust by street watering and the use of westrumite, improved methods of scavenging and sanitation, and the distribution by the registrar of leaflets giving instructions as to the feeding and care of infants.

Out of the sixteen infants whose deaths from diarrhoea were inquired into, 8 were fed by means of long tube, 5 by short tube bottles, one by hand, and the others on the breast and solid food. Not one was entirely breast-fed.

Tuberculosis.—The mortality from consumption of the lungs and other forms of tuberculosis compares favourably with that of former years.

With a view of lessening the spread of consumption, notices requesting persons to refrain from spitting were placed in railway stations and other places of public resort.

No application was made for the disinfection of rooms on account of this disease.

The project for the provision of sanatoriums for consumptives by the joint action of the County Council, local authorities and private philanthropists has been shelved, it being thought improbable that money could be raised at this time for these and the Royal Agricultural Society's show to be held at Derby this year.

Water Supply.—The dryness of the last few months of 1904 and the early months of the year caused great anxiety to be felt on this account, and pumping from the Holme and Ladywood brooks was resorted to. The water from these was not of good quality being liable to pollution by cattle. A pressure filter at the brook Ladywood station materially improved the appearance of the water but did not make it bacteriologically perfect. An inspection of the gathering grounds of the brooks showed that the sewage of a farm entered one of them but this was promptly cut off. The acquisition of the Whispering Well at Holymoorside was most valuable, and a connection with the Rural District Council's main at Whittington supplemented the supply to a small extent.

Owing to the good sense of the people, who complied cheerfully with the warning notices concerning the waste or misuse of water, little inconvenience was felt, though the water was turned off for part of the day for some weeks. This had no appreciable effect on the public health.

Progress was made towards the provision of filters for the whole of the supply, and with the new reservoir, the completion of which is very desirable.

Sewage Disposal.—The works are situate in Newbold on 47 acres of land belonging to the Corporation and were designed for treating the sewage by chemical precipitation and irrigation, the land being deeply underdrained for the purpose at a large expense. The sub-soil is a stiff clay and eminently unsuitable for sewage disposal purposes. The best results of land treatment have been obtained on the osier beds which however can deal with only a small proportion of the sewage.

The dry weather flow of sewage was estimated on several occasions last year and found to be about 640,000 gallons per diem. Large volumes of sub-soil water, one of which

amounted to 68,000 gallons per diem, have been prevented since then from entering the sewers, so that my estimate of half-a-million gallons given in my last annual report as the dry weather flow is either correct or an over-estimate.

The sewage on arrival at the disposal works passes through detritus tanks where, the rapidity of flow being lessened, a large amount of the mineral solids in suspension is deposited. It then passes through screens which remove bulky floating and suspended matter, and enters the open septic tanks,—formerly the chemical precipitation tanks. These are three in number and have each a capacity of 223,000 gallons. Two of these are used while the third is being cleaned, so that with the dry weather flow of sewage at 500,000 gallons, it takes rather less than a day to pass through them. Organic solids are to a great extent liquified in these tanks, but some are deposited as sludge, which is removed periodically, squeezed in the sludge presses, and sold for manure. The demand exceeds the supply.

The sewage goes forward from the tanks to a well near the pumping-house, whence it is pumped to the filters, on which it is distributed by revolving arms. The filters consist of destructor breeze, graded and under-drained. Ten were in use at the end of the year and an eleventh ready for use. Their cubic capacity is as follows:—Nos. 1, 2 and 4, 90 feet in diameter and 8 feet deep, each 1885 yards; No. 3, 90 feet in diameter and 6 feet deep, 1414 yards; Nos. 5 to 10, 100 feet in diameter and 6 feet deep, each 1745 yards. No. 11, 100 feet in diameter and 8 feet deep, 2327 yards; total, 19,867 yards, which are equal to taking, at the rate of 84 gallons to the cubic yard, 1,668,855 gallons of sewage daily.

The Local Government Board has required, in order that the present sewage and the sewage soon to be taken in from Hasland may be properly dealt with, that 35,000 cubic yards of

filters shall be provided. This amount would be sufficient to deal with 2,940,000 gallons a day, an amount which is never likely to be reached by the sewage proper.

I believe that representations made to the Local Government Board and supported by evidence showing the large reduction made in the amount of sub-soil water entering the sewers would be successful in obtaining a reduction in the amount of filters required by them.

Refuse Disposal.—The removal of the house refuse is carried out by the Corporation staff.

It has cost slightly more in 1905 than in previous years owing to alterations in the method of removal. Formerly it was the practice to empty an ashpit on to the surface of a yard whence the refuse was wheeled to the roadway and piled up to remain until the scavenger's cart came along. The fouling of the surfaces of the yard and road is now avoided by the refuse being carried out in "skips" which are emptied directly into the cart. The result is a great sanitary gain and I believe it to be responsible in part for the diminution in the diarrhoea death rate.

The increasing adoption of dustbins in place of ashpits is another step in the right direction.

The number of emptyings of ashpits was 9170, and the number of loads of nightsoil removed, 12,229.

Twenty loads of clean ashes were tipped, 72 given to farmers and 12,137 burned in the four-cell Horsfall destructor.

The destructor continues to give satisfaction and is sufficient to deal with the refuse. The clinker provides excellent material for the sewage filters.

Systematic Inspection.—Houses were visited and inspected as given under and all nuisances found at them dealt with.

NORTH WARD.—Durrant Road, 10 ; Foljámbe Road, 10 ; Holywell Street, 23 ; Newbold Road, 19 ; New Square, 40 ; Prospect Street, 8 ; Saltergate, 34 ; Sheffield Road, 31. TOTAL, 175.

SOUTH WARD.—Beetwell Street, 30 ; Boythorpe Lane, 34 ; Derby Road, 60 ; Elder Yard, 22 ; Hipper Street, 31 ; Lordsmill Street, 23 ; Low Pavement, 71 ; Park Road, 10 ; St. Mary's Gate, 33 ; Wheeldon Lane, 19. TOTAL, 333.

WEST WARD.—Barker Lane 17 ; Chatsworth Road, 42 ; Chester Street, 15 ; Factory Street, 33 ; Furnace Hill, 18 ; Old Hall Road, 10 ; Old Road, 18 ; Shipley Street, 25 ; Victoria Street, 34 ; Walton Lane, 9 ; Wheatbridge Road, 16. TOTAL, 237.

Common Lodging-Houses.—These were frequently visited and inspected. All bedrooms were remeasured and beds allowed in them at the rate of one for each 400 cubic feet of air space, an increase of 100 feet on the old regulations. Particular attention was paid as to the separation of the sexes, and the provision of proper sanitary appliances.

A recommendation of the Medical Officer of Health to close the Bee-Hive common lodging house was adopted, and the building will be demolished shortly.

The Market and Food.—The market was visited weekly and the food exposed for sale inspected. There were seized 511lbs. of beef, the possessor of which was sent to prison for three months. The vendor of some unsound fruit was fined 10s. and costs. There were also surrendered 50lbs. of beef, 15 carcasses of mutton and 406lbs. of fish. These and the articles seized were destroyed in the destructor.

Eighty samples of food were purchased and submitted to the Borough Analyst, Mr. Scott-Smith, of Sheffield, and comprised 56 of new milk, 15 of butter, 7 of cheese and 2 of coffee. Eight samples of milk were "of superior quality." 25

“genuine,” 22 “of fair quality” and 1 “deficient in fat.” Proceedings were taken against the vendor of the last, who was fined 2s. 6d, and costs. Fourteen samples of butter were genuine and 1 “of suspicious character.” Six samples of cheese were genuine and 1 “of suspicious character. The samples of coffee were genuine.

Cowsheds, Milkshops and Dairies.—These were all visited and the cattle inspected, as were also most of those outside the Borough which send milk into it.

The Slaughter-Houses were frequently visited and found in a satisfactory condition.

The Ice-Cream Manufactories were frequently inspected. They are much cleaner than was formerly the case.

Factory and Workshops.—These were frequently visited and inspected. A list of the 26 defects found and remedied is given in the report appended.

TABLE IX.

Giving a Summary of the Sanitary Work of recent years.

	1896	1897	1898	1899	1900	1901	1902	1903	1904	1905	Total
Houses closed by Magistrates' Order ...	...	...	...	...	...	5	...	...	...	...	5
Houses closed after formal notice ...	11	7	18	6	...	24	9	...	...	...	75
Houses closed after informal notice ...	...	8	...	...	...	1	3	...	...	2	14
Houses demolished or disused... ..	...	...	...	...	...	...	1	...	..	...	1
Houses demolished or disused in consequence of making new railways...	21	...	...	...	...	...	...	...	...	...	21
Houses made fit for habitation ...	19	13	...	3	...	...	...	4	12	42	93
Houses repaired	89	99	67	12	23	45	29	65	45	35	509
Yards repaired	97	38	119	70	76	108	38	106	66	81	799
Overcrowding notices served ...	10	7	41	48	30	31	49	29	16	24	285
Houses inspected	353	884	903	1044	926	1220	1491	1100	909	785	9615
Formal } Notice served for	225	137	112	111	103	133	184	193	151	187	1536
Informal } the abatement of	179	339	509	465	429	376	376	318	331	368	3690
Total number of nuisances abated ...	978	724	1001	895	827	888	796	794	692	1524	9119

TABLE X.

Number of Bathers and Income at Baths from
January to December 1905.

Month.	2d.	3d.	4d.	6d.	Bathers, 1905.	Income, 1905. £ s. d.	Bathers, 1904.	Income, 1904. £ s. d.
January ...	30	127	277	46	480	7 12 1	644	10 2 10
February	42	213	374	73	702	11 1 5	615	9 11 0
March ...	56	304	582	102	1044	16 10 4	753	11 17 5
April ..	54	244	439	90	827	13 1 4	1241	19 16 9
May ...	79	326	603	115	1123	17 14 2	1270	20 11 0
June ...	137	561	939	215	1852	29 4 1	1347	21 6 5
July ..	143	450	803	233	1629	26 0 6	2313	37 0 6
August ...	94	295	580	116	1085	17 0 9	1139	17 18 1
September	79	355	559	136	1129	17 16 3	1391	22 5 3
October ...	41	211	352	66	670	10 9 11	868	13 15 2
November	37	167	339	57	600	9 9 5	693	10 18 3
December	57	248	465	89	859	13 9 6	749	11 12 6
Totals	849	3501	6312	1538	12000	£189 9 9	13023	£206 15 2

293 of this total were women bathers.

Table showing the Number of Bathers using the Baths on each
day of the week.

Sun.	Mon.	Tues.	Wed.	Thur.	Fri.	Sat.	Total.
2054	722	720	865	891	2051	4697	12,000

TABLE XI.

Statement of Income for the Year ending the 31st day of
December, 1905, at the Lavatories, New Square.

Month	Male W.Cs.	Female W.Cs.	Male Lavatory	1905 Total	1904 Total	1903 Total	1902 Total
	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.
January ...	5 11 7	4 3 2	0 7 1	10 1 10	10 2 9	10 19 1	9 10 6
February ...	5 0 3	3 10 7	0 6 7	8 17 5	8 15 4	10 6 3	8 10 9
March ...	5 7 6	3 6 10	0 6 9	9 1 1	9 3 0	11 2 7	13 1 2
April ...	6 7 0	4 2 3	0 9 11	10 19 2	10 6 3	10 8 3	9 11 5
May ...	5 17 4	3 12 2	0 13 3	10 2 9	11 2 8	10 17 9	10 14 2
June ...	4 19 2	2 8 9	0 13 3	8 1 2	7 17 10	11 19 1	11 19 7
July ...	6 3 3	2 15 2	0 13 8	9 12 1	10 19 6	9 9 9	11 6 9
August ...	5 7 6	3 3 11	0 13 2	9 4 7	10 16 10	11 17 11	10 17 5
September ...	5 3 9	3 17 6	0 7 7	9 8 10	9 19 7	10 3 1	12 8 1
October ...	5 0 8	4 13 7	0 6 7	10 0 10	12 10 10	10 0 1	10 2 5
November ...	4 18 4	3 3 1	0 5 4	8 6 9	9 3 1	10 15 10	10 18 1
December ...	6 14 1	4 18 5	0 7 3	11 19 9	10 4 11	9 10 7	12 19 9
Totals ...	66 10 5	43 15 5	5 10 5	115 16 3	121 2 7	127 10 3	132 0 1

TABLE XII.

Inspection of Factories, Workshops, Laundries, Workplaces, and Homework.

1.—INSPECTION.

Including Inspection made by Sanitary Inspectors or Inspectors of Nuisances.

Premises.	Number of		
	Inspections	Written Notices.	Prosecutions
Factories (including Factory Laundries) ..	62	9	0
Workshops (including Workshop Laundries)	213	17	0
Workplaces	0	0	0
Homeworkers' Premises	0	0	0
Total	275	26	0

2.—DEFECTS FOUND.

Particulars.	Number of Defects.			Number of Prosecutions.
	Found.	Remedied	Referred to H.M. Inspector	
<i>Nuisances under the Public Health Acts—</i>				
Want of cleanliness	8	8	0	0
Want of ventilation	2	2	0	0
Overcrowding	0	0	0	0
Want of drainage of floors	2	2	0	0
Other nuisances	6	6	0	0
Sanitary accommodation } insufficient	1	1	0	0
} unsuit'ble or defective	4	4	0	0
} not separate for sexes	3	3	0	0
<i>Offences under the Factory & Workshop Act—</i>	0	0	0	0
Illegal occupation of underground bakehouses	0	0	0	0
Breach of special sanitary requirements for bakehouses	0	0	0	0
Failure as regards lists of outworkers ..	0	0	0	0
Giving out work to be done in premises which are } unwholes'ome	0	0	0	0
} infected	0	0	0	0
Allowing wearing apparel to be made in premises infected by scarlet fever or smallpox	0	0	0	0
Other offences	0	0	0	0
Total	26	26	0	0

3.—OTHER MATTERS.

Class.	Number.	
Matters notified to H.M. Inspectors of Factories :—	0	
Failure to affix Abstract of the Factory and Workshop Act	9	
Action taken in matters referred by H.M. Inspectors as remediable under the Public Health Acts but not under the Factory Act	Notified to H.M. Inspectors ..	16
	Reports (of action taken) sent to H.M. Inspectors ..	16
Other	0	
Underground Bakehouses :—		
Certificates granted during the year	0	
In use at the end of the year	0	
Number of		
Homework :—	Lists.	Out-workers.
<i>Lists of Outworkers :—</i>		
Lists received	2	68
Addresses of) forwarded to other Authorities	2	4
Outworkers) received from other Authorities	0	0
<i>Homework in unwholesome or infected premises :—</i>	Wearing Apparel.	Other.
Notices prohibiting homework in unwholesome premises	0	0
Cases of infectious disease notified in homeworkers' premises	0	0
Orders prohibiting homework in infected premises ..	0	0
Workshops on the Register at the end of the year	137	

TABLE XIII.

**Summary of Work done by Inspector of Nuisances
during the Year 1905.**

Nature of Cases dealt with.	Ward.			Total.
	North.	South.	West.	
Inspection of Dwelling-houses	175	333	237	745
„ and visits to premises where Zymotic diseases have occurred ..	188	214	227	629
„ of premises where offensive trades are conducted	12	34	0	46
„ of workshops	68	94	47	209
„ slaughterhouses	23	117	49	189
„ cowsheds and dairies.. ..	29	26	58	113
„ bakehouses	11	41	15	67
„ common lodging houses	59	127	21	207
Re-inspection of work in progress for abate- ment of nuisances.. ..	159	257	179	595
House drains tested with smoke	11	9	0	20
Total number of Inspections of premises ..	735	1252	833	2820
Number of houses disinfected after cases of infectious diseases	74	50	59	183
Number of complaints from public investi- gated	46	42	34	122
Number of notices issued for (legal ..	58	71	58	187
abatement of nuisances (informal ..	125	141	102	368
Dirty houses cleansed and limewashed ..	9	16	17	42
Houses overcrowded	4	10	10	24
Waste pipe connected to drains	0	4	0	4
Drains obstructed	34	48	39	121
Defective traps and drain inlets	28	46	21	95
Insanitary privies and middens	37	30	45	112
Insufficient closet accommodation	1	4	2	7
Insanitary privies converted into water- closets	5	8	6	19
Water-closets defective	28	27	13	68
Yard surfaces in bad repair	30	27	24	81
Eaves and downspouts defective	29	39	23	91
Urinals repaired and altered	1	5	2	8
Animals improperly kept	1	6	7	14
Offensive accumulations	4	15	10	29
Total number of nuisances	211	285	219	715
„ „ „ abated	207	274	216	697

